Systems of Equations Word Problems

46. A meal consists of a sandwich and a salad. The sandwich has 3 times as many calories as the salad. If the total meal has 600 calories, how many calories are in the sandwich and how many are in the salad?

47. Mark downloaded some music files (3 MB each) and some video files (8 MB each). He downloaded a total of 10 files, and their total size was 50 MB. How many music files and how many video files did he download?

48. A child is building a tower using red blocks that are 3 cm tall and blue blocks that are 5 cm tall. The tower uses 10 blocks in total and is 38 cm tall. How many red blocks and how many blue blocks were used?

49. Two thermometers, one Celsius (C) and one Fahrenheit (F), show readings such that F=1.8C+32. At what temperature do both thermometers show the same numerical value?

50. For a party, you buy packs of paper plates and packs of cups. Plates come in packs of 20, and cups come in packs of 15. You bought a total of 7 packs. If you ended up with exactly 120 total items (plates and cups combined), how many packs of plates and how many packs of cups did you buy?